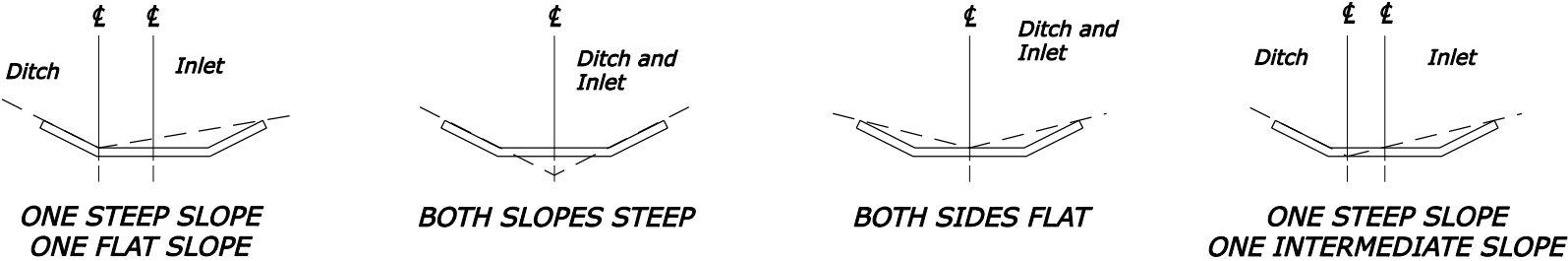
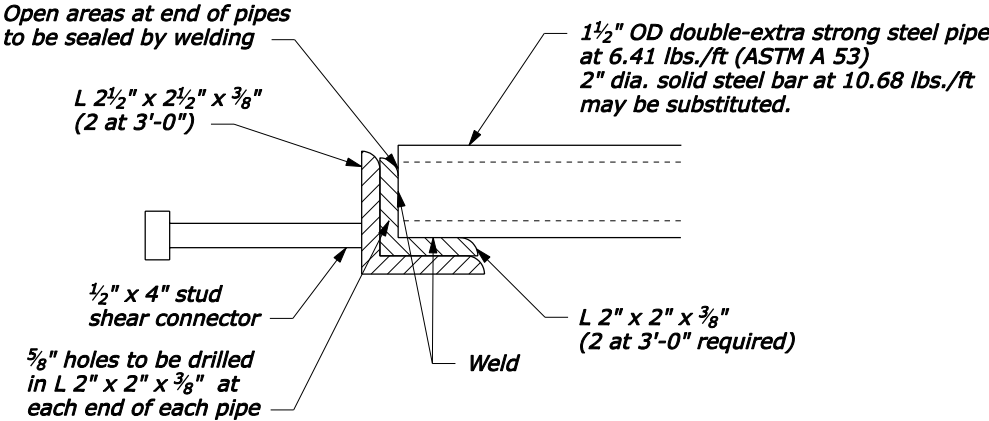
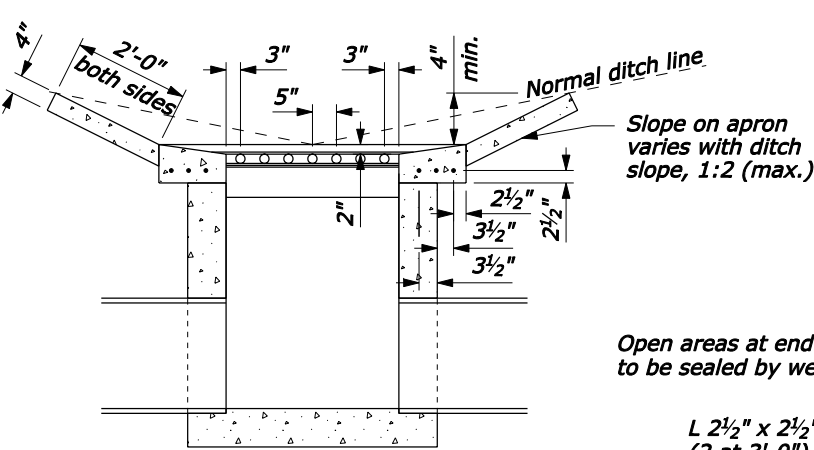
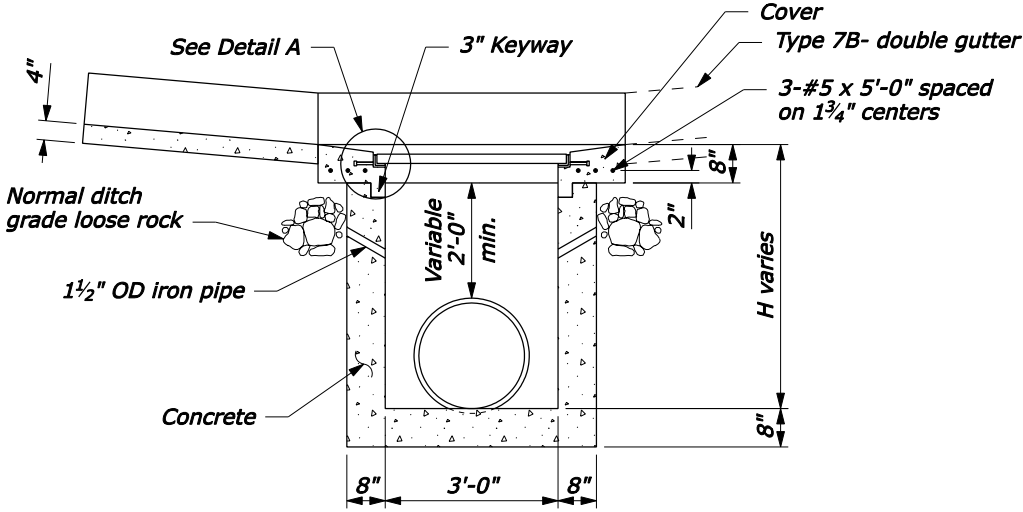


NOTE:

- Type 7A has a single gutter when inlet is on a grade.
- Type 7B has a double gutter when inlet is in a sag between two grades.
- Ditch to be warped to tie smoothly into inlet gutter.
- Outside dimensions of grate to be 3'-4" x 2'-11³/₄".
- Maximum depth (H) is 12'-8".
- All reinforcing bars are #5 placed a minimum 1¹/₂ inch clear from face of concrete. In floors, place bars on 6 inch centers each way. In walls, place horizontal bars on 6 inch centers and vertical bars on 12 inch centers.
- Galvanize grate after fabrication in accordance with AASHTO M 111.
- Alternate methods of anchoring angle iron will be acceptable if approved by the CO.

APPROXIMATE QUANTITIES						
Pipe size	12"	15"	18"	24"	30"	36"
Minimum Depth (H)	2'-0"	2'-3 ¹ / ₄ "	2'-6 ¹ / ₂ "	3'-1"	3'-7 ¹ / ₂ "	4'-2"
Inlet concrete for minimum depth, CUYD	0.947	1.045	1.143	1.339	1.535	1.731
Additional inlet concrete	0.362 cuyd for each additional foot of depth (H)					
Gutter concrete	Type 7A: 0.724 cuyd Type 7B: 1.184 cuyd					
Cover concrete (not included above)	0.423 cuyd					
Cover reinforcing steel	63 lb					



NO SCALE